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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/090,709	03/04/2002	Satish N. Menon	A-69967/RMA	4796

7590 03/24/2005

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EXAMINER

LIN, KELVIN Y

ART UNIT	PAPER NUMBER
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2142

DATE MAILED: 03/24/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	10/090,709	MENON ET AL.	
	Examiner	Art Unit	
	Kelvin Lin	2142	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on ____.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-22 is/are pending in the application.
- 4a) Of the above claim(s) ____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) ____ is/are allowed.
- 6) ☒ Claim(s) 1-22 is/are rejected.
- 7) ☐ Claim(s) ____ is/are objected to.
- 8) ☐ Claim(s) ____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 04 March 2002 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. ____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. ____. |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| Paper No(s)/Mail Date <u>10/03/02</u> . | 6) <input type="checkbox"/> Other: ____. |

Detailed Action

Claim Rejections - 35 USC § 112

The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

1. In Claim 1, the phrase “maintaining isochronous delivery” lack sufficient antecedent basis.
2. In Claims 2, and 9, the phrase “playback procedure” lack sufficient antecedent basis.
3. In Claim 7, it is in improper Markush format and therefore is indefinite. The language, "selected from the group consisting of" must be included in order to be proper.
4. In Claim 15, the phrase “a full-length feature film in a video format ” lack sufficient antecedent basis.
5. The above noted problems are not necessarily an exhaustive listing, but a meant to be exemplary of the types of errors present. It is incumbent upon an applicant to ensure that any amendment filed resolves all deficiencies and places the claims in compliance with 35 USC 112.
6. Appropriate correction is required.

Claim Rejections - 35 USC § 102

7. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

8. Claims 1-7, and 16-22 are rejected under 35 USC 102(e) as being anticipated by Leighton et al., (US Patent No. 6553413).

9. Regarding claim 1, Leighton teaches a metadata enabled edge server for distributing a content object to a user over a network communication link in response to a user request, said metadata enabled edge server comprising:

- a server computer having a processor and memory coupled to said processor for executing computer program instructions, and at least one input/output port for receiving and sending communications from external entities (Leighton, col.17, l.1-3, l.16-23);
- a storage device coupled to said server and storing metadata describing content objects accessible to said server including at least one location from where a particular one of said content object is stored and may be directed to said user (Leighton, col. 5, l.37-49,

here, markup language is a metadata and store in the web server or server near to the client machine); and

- a controller for distributing said content object to said user using said metadata and maintaining isochronous delivery of portions of said content over said network (Leighton, col. 6, l. 1-6) .

10. Regarding claim 2, Leighton further discloses a metadata enabled edge server as in claim 1, wherein said controller includes a request response and playback procedure executing as software on said metadata enabled edge server (Leighton, col.13, l.5-8).
11. Regarding claim 3, Leighton further discloses a metadata enabled edge server as in claim 1, wherein said network comprises the Internet (Leighton, col.4, l.65-67).
12. Regarding claim 4, Leighton further discloses a metadata enabled edge server as in claim 1, wherein said network communication link comprises a packet switched communication link not in itself having means for maintaining isochronous delivery of a content item separated into a plurality of packets for communication from said server to said requesting user (Leighton, col.6, l.1-8).
13. Regarding claim 5, Leighton further discloses a metadata enabled edge server as in claim 1, wherein said content items are internally accessible to said server computer (Leighton, col.3, l.12-17, col.6, l.30-36).
14. Regarding claim 6, Leighton further discloses a metadata enabled edge server as in claim 1, wherein said content items are externally accessible to said server

computer (Leighton, col.6, l.38-41).

15. Regarding claim 7, Leighton further partially discloses a metadata enabled edge Server as in claim 1, wherein said metadata database stores data selected from the set of content physical properties, content storage locations, content usage terms content usage rights, content playback duration, content prefix cache status content network routing cost information, and combinations thereof. (Leighton, col.16, l.30-35, content provider fully control over the databases that includes physical properties in "Leighton, col. 16, l.51-62", and storage location in "Leighton, col. 6, l.24-27").
16. Regarding claim 16, Leighton further partially discloses a metadata enabled edge server as in claim 1, wherein said network communication link comprises Internet infrastructure (Leighton, col.5, l.7-9).
17. Regarding claim 17, Leighton further partially discloses a metadata enabled edge server as in claim 1, wherein said network communication link comprises Internet infrastructure and Internet communication protocol (Leighton, Fig. 5, col.7, l.52-55).
18. Regarding claim 18, Leighton further partially discloses a metadata enabled edge server as in claim 1, wherein said metadata is used to enables intelligent decisions to be made on system operation and content routing (Leighton, col.5, l.57-60).
19. Regarding claim 19, Leighton further partially discloses a metadata enabled edge

server as in claim 1, wherein said metadata contains information about the actual content including its physical properties, possible locations of the content represented by the metadata, its usage terms (Leighton, col.6, l.24-27, col.16, l.59-62)

20. Regarding claim 20, Leighton further partially discloses a metadata enabled edge server as in claim 1, wherein said metadata includes a globally unique identifier describing the content object and at least one location at which said content object may be found (Leighton, col.7, l.41-44, col.16, l.20-21).
21. Regarding claim 21, Leighton further partially discloses a metadata enabled edge server as in claim 1, wherein said content object comprises a video content object having an amount of data requiring a plurality of packets for communication over a packet switched network, and said controller providing isochronous delivery from said identified content location to a playback device of said requesting user (Leighton, col. 13, l.1-13).
22. Regarding claim 21 has similar limitation as claim 1. Therefore, Claim 21 is rejected for the same reasons set forth in the rejection of claim 1.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

23. Claims 8-15 are rejected under 35 U.S.C 103(a) as being unpatentable over Leighton in view of Bommaiah et al., (US Patent No. 6708213).
24. Regarding claims 8-15, Leighton differs from the claimed invention in that it fails to teach the prefix caching and playback in detail.

However, Bommaiah teaches a method and apparatus for enhancing existing caching system to better support streaming media over the Internet and other public network system (Bommaiah, Abstract).
25. Regarding claim 8, Bommaiah further discloses a metadata enabled edge server as in claim 1, wherein metadata also includes a prefix portion of the content or a low-resolution preview of the content (Bommaiah, col.5, l.2-3).
26. Regarding claim 9, Bommaiah further discloses a metadata enabled edge server as in claim 1, wherein said control means includes a request response and playback procedure (Bommaiah, col. 8, l.8-10).
27. Regarding claim 10, Bommaiah further discloses a metadata enabled edge

server as in claim 1, wherein said storage stores at least one content item that is intended to be rendered for presentation at a predetermined time rate (Bommaiah, col. 6, l.60-62).

28. Regarding claim 11-12, Bommaiah further discloses a metadata enabled edge server as in claim 1, wherein said at least one content item comprises a video content item having image element frames and audio elements that is intended to be rendered for presentation on a playback device at said predetermined time rate so as to provide substantially the same visual and audio rendering to a viewer as when generated (Bommaiah, col.4, l.9-15, col.5, l.17-24).
29. Regarding claims 13-15, the amount of playback rates are not being defined clearly nor in the same category as claims 1-12. Therefore claims 13-15 are rejected.
30. Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to have the prefix caching of Bommaiah to enhance the cache system in Leighton and associated with the metadata server.

Conclusion

The prior art made of record and not relied upon is considered pertinent to application's disclosure.

- Blakeslee et al., (US Patent No. 5623699) Read Only Linear Stream Based Cache System.
- Boyle et al. (US Patent No. 6119167) Pushing And Pulling Data In Network.
- Eager et al., (US Patent No. 6868452) Method For Caching Of Media Files To Reduce Delivery Cost.
- NPL – Rejaie et al., Multimedia proxy caching mechanism for quality adaptive streaming applications in the Internet, IFOCOM 2000, Nineteenth Annual Joint Conference of the IEEE Computer and Communications Societies. Proceedings IEEE, vol. 2, 26-30 March 2000, pp. 980-989.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Kelvin Lin whose telephone number is 703-605-1726.

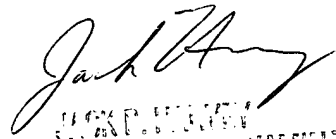
The examiner can normally be reached on Flexible 4/9/5.

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If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Jack Harvey can be reached on 703-305-9705. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Kyl
3/18/05


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